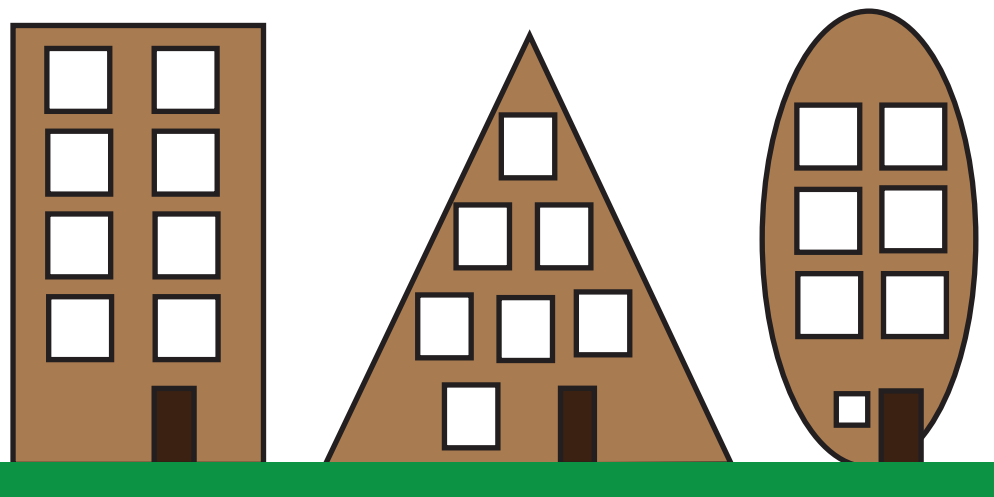


Why do buildings shake?

When tectonic plates push against each other they can break causing an Earthquake. This causes vibrations that scientists call seismic waves.



Vibrations can shake buildings, and some fall over. This is very dangerous, so we need to build tall buildings that will be able to shake but not fall down.

What shapes do you think would be best to build? Which ones would not fall down in an earthquake?

Challenge!

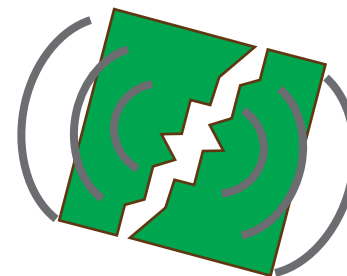
Can you build a shake-proof building using items from your kitchen? Decide what would be best to use and draw a picture of your building, make sure you label all the different parts you have used!

What will you use to hold it up? Dry Spaghetti, or paper straws? How will you stick them together? Marshmallows?

What is a Seismic Wave?

Earthquakes are caused by tectonic plates pushing together or pulling apart. Sometimes, when they do this, they break!

When these large rocks break they cause vibrations called seismic waves. These are waves just like sound. In an earthquake the ground moves up and down. The waves can travel very large distances!



The waves travel away from the Earthquake in all directions!

Challenge!

Using two plastic or paper cups and a piece of string we can send vibrations long distances!

Get an adult to help you cut a small hole in the bottom of two cups. Thread the string through the hole and tie it in a knot (make sure it won't fall out of the bottom of the cup! Then do this again with the other end of the string and cup. Now try speaking into the cup. Can someone hear you at the other end? If you made the string longer can they still hear you?



Whenever you speak, shout or even sing, you create vibrations in the air, just like earthquakes create vibrations in the Earth.